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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/531,374	04/15/2005	Akira Kuramori	OGW-0361	1233

23353 7590 12/27/2006
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EXAMINER

KOTTER, KIP T

ART UNIT	PAPER NUMBER
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3617

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	12/27/2006	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/531,374	KURAMORI ET AL.	
	Examiner	Art Unit	
	Kip Kotter	3617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-4 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 April 2005 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>15 April 2005</u> | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

Drawings

1. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: **1**. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance. **No new matter should be entered.**

Specification

2. The disclosure is objected to because of the following informalities:
- On page 3, paragraph [0007], "tire assembly wheel" should be changed to – **tire wheel assembly** –.
 - On page 9, paragraph [0028], "an front right wheel" should be changed to – **a front right wheel** –.

Appropriate correction is required. **No new matter should be entered.**

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1 and 2 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hellweg et al. (U.S. Patent No. 6463974 B1) in view of Payne et al. (U.S. Patent No. 4823854).

With respect to claim 1, Hellweg et al. discloses a tire wheel assembly in which a pneumatic tire 34 is fitted to a rim 8 of a wheel 1 and a run-flat support 2 is inserted in a cavity section (unlabeled) of the pneumatic tire 34, the run-flat support 2 including an annular shell 3 and a pair of left and right elastic rings 4, 5, the annular shell 3 having a support surface projecting to the outer circumferential side as shown in Fig. 1 and leg parts 6, 7 extending along both sides of the support surface, and the elastic rings 4, 5 supporting the leg parts 6, 7 of the annular shell 3 on the rim 8, wherein the run-flat support is compressed when mounted on the rim as described in column 5, lines 19-26. Hellweg et al. does not disclose expressly that a relation $(W2-W1)/W1=0.015-0.100$ is satisfied assuming that $W1$ is an interval between abutting points where the pair of left and right elastic rings abut on the inner surface of the tire when the pneumatic tire and the run-flat support are mounted on the rim and $W2$ is an interval between the abutting points when the run-flat support is not mounted.

Payne et al. teaches a tire wheel assembly wherein a relation $(W2-W1)/W1=0.015-0.100$ is satisfied when the run-flat support is mounted on the rim as shown in Fig. 11 and described in detail in column 13, lines 38-55 ($W1=6.96''$ and $W2=7.08''$, thus $(W2-W1)/W1=.0172$). At the time of the invention, it would have been obvious to a person of ordinary skill in the art to have used a run-flat support which upon mounting compresses a desired amount, such as taught by

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Payne et al., for the tire wheel assembly of Hellweg et al. to prevent the tire bead from being unseated and the run-flat support from buckling.

With respect to claim 2, to employ elastic rings with a JIS-A hardness of 50 to 65 would have been obvious to one of ordinary skill in the art as it is well known and recognized in the art to select a material for the elastic rings with the aforementioned property to provide adequate support for run-flat driving and help prevent the annular shell from being plastically deformed when mounted on the rim.

5. Claims 3 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hellweg et al. in view of Payne et al. as applied to the claims above, and further in view of Boiocchi et al. (U.S. Patent No. 7100654 B2). Hellweg et al., as modified by Payne et al., does not disclose expressly that the annular shell is composed of metal with a yield strength of 400 MPa or more.

Boiocchi et al. teaches an annular shell composed of spring steel with a yield strength between 1200 Mpa and 1300 Mpa (column 7, lines 60-63). At the time of the invention, it would have been obvious to a person of ordinary skill in the art to have used an annular shell composed of metal with a yield strength of 400 MPa or more, such as taught by Boiocchi et al., for the tire wheel assembly of Hellweg et al., as modified by Payne et al., to provide rigid support for run-flat driving and help prevent plastic deformation of the annular shell when mounted on the rim.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The references show other wheel assemblies with safety supports.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kip Kotter whose telephone number is (571) 272-7953. The examiner can normally be reached on 9:00-4:00pm est.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Samuel J. Morano can be reached on (571) 272-6684. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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